

**What is claimed is:**

1. A method for transmitting message packets over a communications network comprising the steps of:

5 converting a plurality of streams of audio and/or visual information into a plurality of streams of addressed digital packets complying with the specifications of a network communication protocol,

for each stream, routing such stream to one or more users,

10 controlling the routing of the stream of packets in response to selection signals received from the users, and monitoring the reception of packets by the users and accumulating records which indicate which streams of packets were received by which users.

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2. The method of claim 1 further comprising the step of including in at least one stream of packets at least some advertising information.

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3. The method of claim 2 further comprising the step of varying the content of the advertising information with the identity of the user to whom the advertising information is provided.

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4. The method of claim 2 wherein the advertising information is inserted into the stream of audio and/or visual information before such stream is converted into a stream of packets.

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5. The method of claim 1 further comprising the step of generating an audio output and/or a visual display from the stream of packets received by the user.

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6. The method of claim 1 further comprising the steps of:  
storing a first stream of packets received by the user at a first time and

at a later time, inserting the first stream of packets into a second stream of packets received at the user.

7. The method of claim 6 further comprising the step  
5 of converting the combined first and second streams of packets into an audio output and/or visual display.

8. The method of claim 6 wherein the first stream of packets contains advertising information.

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9. The method of claim 6 wherein the content of the advertising information is varied depending on the identity of the user.

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10. The method of claim 2 wherein the records that are accumulated indicate how many users received specific advertising information.

11. The method of claim 1 wherein at least one stream  
20 of packets comprises copyrighted music selections and the records that are accumulated indicate how many users received specific music selections.

12. The method of claim 1 wherein at least one stream  
25 of packets comprise music selections and the records that are accumulated indicate how many users did or did not listen to the entire selection.

13. The method of claim 1 further comprising the steps  
30 of:

compressing the stream of packets in their passage from source to user, and  
decompressing the stream of packets near the user.

14. The method of claim 3 where in the compressing step  
35 uses a compression algorithm that is selected in accordance

with the content of the information being communicated in the stream of packets.

15. The method of claim 4 wherein the compressing step  
5 inserts into each packet an identification of the compression algorithm used and the decompressing step monitors each packet to read such identification and to vary its decompression algorithm in response thereto.

10 16. A method for transmitting at least one stream of audio and/or visual information over a communications network to a plurality of users comprising the steps of:

controlling the routing of the stream of  
information through the network in response to selection  
15 signals received from the users, and  
monitoring the reception of the stream of  
information by the users and accumulating records relating to  
the reception of the stream of information by the users.

20 17. The method of claim 16 further comprising the step of including in at least one stream of information at least some advertising information. a

18. The method of claim 17 further comprising the step  
25 of varying the content of the advertising information with the identity of the user to whom the advertising information is provided.

19. The method of claim 16 further comprising the steps  
30 of:

storing a first stream of information received by  
the user at a first time and  
at a later time, inserting the first stream of  
information into a second stream of information received by  
35 the user.

20. The method of claim 19 wherein the first stream of information contains advertising information.

21. The method of claim 17 wherein the records that are accumulated indicate how many users received specific advertising information.

22. The method of claim 17 wherein at least one stream of packets comprises copyrighted music selections and the records that are accumulated indicate how many users received specific music selections.

23. The method of claim 17 wherein at least one stream of packets comprise music selections and the records that are accumulated indicate how many users did or did not listen to the entire selection.

24. The method of claim 17 further comprising the steps of:  
compressing the stream of information in its passage from source to user, and  
decompressing the stream of information near the user.

25. The method of claim 24 wherein the compressing step uses a compression algorithm that is selected in accordance with the content of the information being communicated in the stream of information.

26. The method of claim 16 wherein multiple streams of audio and/or visual information are transmitted over the communications network and the user can select which stream to receive.

27. A communication system comprising:  
means for converting at least one stream of audio and/or visual information into a stream of addressed digital

packets complying with the specifications of a network communication protocol,

means for routing such stream via a communication network to selected users,

5 means for controlling the routing of the stream of packets in response to selection signals received from the users, and

means for monitoring the reception of packets by the user and for accumulating records which indicate which  
10 streams of packets were received by which users.

28. The communication system of claim 27 further comprising means for including in the stream of packets at least some advertising information.

15 29. The communication system of claim 28 further comprising means for varying the content of the advertising information with the identity of the user to whom the advertising information is provided.

20 30. The communication system of claim 27 further comprising means for generating from the stream of packets received at the user an audio output and/or a visual display.

25 31. The communication system of claim 27 further comprising means for storing packets received at the user during a first time period and means for inserting such packets into other packets received at the user at a later time period.

30 32. The communication system of claim 31 wherein the stream of packets received during the first time period contains advertising information.

35 33. The communication system of claim 32 wherein the content of the advertising information is varied depending on the identity of the user.

34. The communication system of claim 27 further comprising:

means for compressing the stream of packets in their passage from source to user, and

5 downstream of the compressing means, means for decompressing the stream of packets.

35. The communication system of claim 34 wherein the compressing means is located near the converting means and  
10 the decompressing means is located at the user.

36. The communication system of claim 34 wherein the compressing means uses a compression algorithm that is selected in accordance with the content of the information  
15 being communicated in the stream of packets.

37. The communication system of claim 34 wherein the compressing means inserts into each packet an identification of the compression algorithm used and the decompressing means  
20 monitors each packet to read such identification and to vary its decompression algorithm in response thereto.

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